

# FLIGHT

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## The Outlook

### Resolutions

THIS is the time of year for good resolutions, but before they can be formulated it is usually necessary to take stock in order to see where one has failed in the past, no less than to derive from previous successes encouragement for further effort. At the present moment the expansion and re-equipment of the R.A.F. is the most vital preoccupation of the British aircraft industry. One may, perhaps, say that it is going on as well as could be expected, although the fact that Germany is believed to have produced 7,000 aero engines in 1937 and to be producing aircraft of all types at the rate of 400 per month gives no cause for complacency. At any rate, there is obviously nothing that can be done about it.

If one turns from military to civil aviation, there is good cause to be alarmed. We publish in this issue an article in which an American correspondent lifts the veil and reveals an activity on the other side of the Atlantic which makes our own efforts look lethargic. And last week Capt. Wilcockson, Imperial Airways' well-known pilot, expressed the view that in the matter of training of personnel, operating experience and instrument development and use, this country is three years behind the United States. Taken together, the two give one something to think about.

### Losing a Lead

FROM the point of view of technical progress, military and civil aviation cannot be altogether segregated, developments in one field having their immediate repercussions in the other, although possibly with modifications and adaptations. It is now a good many years ago that Great Britain established a lead in flying-boat design and construction. That lead appears to be in very great danger of being lost, not because of inability among our designing staffs to produce the world's best, but through lack of support. Until Imperial Airways placed the order for 28 Empire flying boats with Short Brothers, no British firm had had any great encouragement to develop civil flying boats. The Air Ministry ordered a few boats at a time, but could not seem to make up its mind about what it wanted, and changes in policy occurred which did not help towards continuity of effort.

Without regarding as other than ambitious projects which

may or may not be built some day, the two American designs for a 550-ft.-span flying boat and a 500-passenger one, there is sufficient actual planning, building and testing going on in America to show how much in earnest are our cousins on the other side. Glenn Martin is developing a 100-passenger boat of 188 ft. span, intended for trans-oceanic commercial work; his firm has already built and flown the 157-ft.-span boat for Russia described and illustrated in *Flight* recently. Martin, Boeing and Sikorsky are building 60-tonners for the U.S. Navy, and Sikorsky is reported, in addition, to be developing a 50-tonner for the Atlantic service which will carry 36 passengers when operating Atlantic ranges.

Some warning that America intended to apply herself seriously to the flying-boat problem has been evident for some years from the fact that her research establishments have carried out very extensive tests on hull forms. Thus, when the Government purse-strings were loosened, American constructors had ready to hand a wealth of information upon which to base their designs.

Although it is known that Shorts have on the drawing board an improved version of the Empire boat, and although there are rumours of a very large machine, one cannot quite feel that encouragement sufficient to enable one firm to cope with the competition from three or four American companies is being given British firms.

### Experience

IN the meantime, as Capt. Wilcockson pointed out, the Americans have been steadily accumulating experience in long-range transoceanic flying-boat operation. Although weather conditions over the Pacific are very different from those over the Atlantic, the operation of the Pacific route has enabled Pan-American Airways to train their crews in long-distance navigation, and when the Americans come to operate an Atlantic service, they will start with a very great advantage compared with us. Navigational equipment also has been greatly developed and thoroughly tested in actual operational conditions, compared with which the very limited, although very promising, experience which Imperial Airways had an opportunity to accumulate during ten crossings of the Atlantic is insignificant. Operation of the Empire routes will help to fill the gap, but is not strictly applicable to Atlantic conditions.